

Granulation to Closure: Utilization of Hypochlorous Acid Solution after Negative Pressure Wound Therapy

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Background/Objective

Wound closure is optimally achieved when an orderly transition from inflammation through proliferation and remodeling is realized. Negative Pressure Wound Therapy (NPWT) has been demonstrated to be effective in maximizing the formation of granulation tissue. The wound specialist is then challenged with the decision of what product to transition to once the end points of NPWT have been attained, complete wound base granulation with minimal depth and undermining. The ideal therapy after NPWT would maintain the presence of the fibroblast, limit bioburden and provide proper wound moisture to promote neoepithelialization.

Hypochlorous acid (HOCl) is a novel, FDA cleared product for cleansing, irrigating, moistening, lubricating, and debriding acute and chronic wounds. HOCl is an oxidant produced by the body's natural immune system to kill invading microorganisms and is highly effective in decreasing wound bioburden. VASHE™ Wound Cleanser* has been demonstrated to improve healing rates of chronic venous leg ulcers(1).

Methods

A series of patients with non-healing surgical wounds were treated with NPWT until the wound bases were well granulated with superficial depth, without undermining or tunneling. These patients were then transitioned to topical therapy with hypochlorous acid. Healing rates were compared to standard moist wound healing regimens. The following cases are presented to illustrate the wound healing trajectories that can be attained with the use of HOCl as the primary topical agent after wounds have reached an endpoint for management with NPWT.

Conclusion

VASHE™ Wound Cleanser is an effective transition agent for use in surgical wounds after reaching the endpoint for NPWT and can be used to take these wounds to complete wound.

VASHE™ Wound Cleanser is cost efficient and optimizes patient care by achieving excellent wound healing trajectories when used as a primary topical wound care agent.

*VASHE™ Wound Cleanser, PuriCore, Malvern, PA

1. Selkon, J.B., et. al (2006). Evaluation of hypochlorous acid washes in the treatment of chronic venous leg ulcers. Journal of Wound Care. Volume 15.

Results/Case Report 1

A 53 year old female with a past medical history of diabetes, diabetic neuropathy, and hypertension developed a left diabetic foot ulcer with underlying osteomyelitis. The patient (Wagner's III DFU) was managed with debridement (partial foot amputation), intravenous antibiotics and then treated postoperatively with hyperbaric oxygen therapy and NPWT. The patient was transitioned to HOCl after reaching the end point of NPWT.



Appearance after 3 weeks
of NPWT VASHE
Wound Therapy initiated.



Healed after 6 weeks of
VASHE Wound Therapy.

Results/Case Report 2

A 42 year old male underwent excision of an ectopic bone of his right hip. After a several month history failure to heal the patient was referred to the wound care center. The patient was treated with NPWT for 3 weeks and then transitioned to VASHE daily dressing changes.



Appearance at initial
Wound Team Consult.



Appearance after 3 weeks of
NPWT. VASHE Wound
Therapy initiated.



Healed after 6 weeks of
VASHE Wound Therapy.